

Abstract Details

Title: An Improved Statistical Approach for Soft Computing

Authors: Dr. Geeta Arora and Savita Narang

Abstract: Soft computing is a fusion of methodologies that are designed to obtain working solutions to real world problems quickly accepting approximations and unconventional approaches. Its main aim is to exploit the tolerance for the imprecision, uncertainty, approximate reasoning and partial truth in order to achieve the close resemblance with human like decision making. Statistics is more rigorous and focuses on establishing objective conclusions based on experimental data by analyzing the possible situations and their likelihood. It emphasizes the need for mathematical methods and tools to assess solutions and guarantee performance. Combining the two fields enhance the robustness and generalizability of data analysis methods, while preserving the flexibility to solve real-world problems efficiently and intuitively. This paper modifies the idea of soft probability, where a model for computing probabilities of fuzzy systems and events is constructed.

Keywords: Fuzzy Set, Fuzzy computing, Probabilistic computing, Data Analysis, Soft Computing, Statistics.